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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,312	12/07/2001	Jong-Chull Shon	1594.1025	7927

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EXAMINER

VAN, QUANG T

ART UNIT	PAPER NUMBER
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3742

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/005,312

Applicant(s)

SHON, JONG-CHULL

Examiner

Quang T Van

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 1-15, 27 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-26, 30, 31, 33 and 35 is/are rejected.
- 7) ☒ Claim(s) 29, 32, 34, 36 and 37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

***Election/Restrictions***

1. Applicant's election with traverse of Group II, Species 1A (claims 16-26 and 29-37) in Paper No. 7 is acknowledged. Non-elected claims 1-15 and 27-28 are withdrawn from consideration. The Examiner has reconsidered and agreed with the Applicant that claims 16 and 30 are generic to the Species IA through IIB. The traversal is on the ground(s) that "claims 1-15 are so closely related to elected claims 16-37 that they should remain in the same application to avoid imposing any undue burden, expense, and delay on the Applicant in preserving the invention recited in claims 1-15 of Group I" and "it is believed that the Examiner's search would naturally encompass both technologies". This is not found persuasive because these inventions are distinct for the reasons given in previous office action (paper number 5) and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper. Further, because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

The requirement is still deemed proper and is therefore made FINAL.

***Specification***

2. The specification is objected because reference character "210" has been used to designate both "A high voltage transformer 210" recited on page 6, line 5 and "an input unit 210" recited on page 6, line 21. Correction is required.

***Claim Objections***

3. Claim 16 is objected to because of the following informalities: "wherein wherein" recited in lines 5-6 has a typo error and should be changed to "wherein". Correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 16-24, 30-31, 33 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Nitta et al (US 4,015,230). Nitta discloses a humidity sensitive ceramic resistor comprising a board (4), a first electrode (5) disposed on said board (4); and a second electrode (5) disposed on said board (4) opposite said first electrode to form a gap therebetween (figure 2), wherein the gas is received into the gap such that the liquid forms a conductive path between said first and second electrodes as to vary a resistance across the gap (col. 4, lines 51-65).

6. Claims 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Harman, III et al. (US 4,707,244). Harman discloses a solid state sensor element comprising a board (21), a first electrode (22) disposed on said board (21); and a second electrode (23) disposed on said board (21) opposite said first electrode to form a gap therebetween (33), wherein the gas is received into the gap such that the liquid

forms a conductive path between said first and second electrodes, inherently to vary a resistance across the gap (Abstract, lines 12-25).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nitta et al (US 4,015,230) or Harman, III et al. (US 4,707,244) in view of Nakahara et al (US 5,837,886). Nitta and Harman disclose substantially all features of the claimed invention except one of the first and second detection portions further comprising protective layer. Nakahara discloses one of the first and second detection portions further comprising protective layer (col. 6, lines 4-18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in Nitta and Harman one of the first and second detection portions further comprising protective layer as taught by Nakahara in order to prevent corrosion due to the liquid.

9. Claims 29, 32, 34 and 36-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not show or suggest said board comprising vents through which portions of the gas not received within the gap pass as recited in claims

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29 and 34; said current source is a separate unit from said detection unit as recited in claim 32; and a resistor and a capacitor connected in parallel between a ground and said second electrode as recited in claims 36-37.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang T Van whose telephone number is 703-306-9162. The examiner can normally be reached on 8:00Am 7:00Pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sang Paik can be reached on 703-308-1147. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.



QV  
October 10, 2003



Quang T Van  
Primary Examiner  
Art Unit 3742